

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-23 are pending. Claims 2, 5, 9, 12, and 14 are amended, and claim 23 is added. Claims 1, 2, 4, 5, 7, 9, 12, 14, 15, 20, 21, and 23 are independent. Reconsideration of this application, as amended, is respectfully requested.

Allowable Subject Matter

Claims 4, 6, 7, 10, 11 and 15-22 are allowed. Claims 8, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants thank the Examiner for the indication of allowable subject matter.

In response, the Applicants respectfully submit that independent claim 1 as currently written sets forth a novel combination of elements not disclosed by the references cited by the Examiner;

independent claim 2 is amended to include a novel combination of elements not disclosed by the references cited by the Examiner;

independent claims 5, 9, and 14 are amended to incorporate the allowable subject matter of objected-to claim 12; and

claim 12 is rewritten in independent form, without the limitations of base claims 2 and 5, respectively; and

added independent claim 23 combines the subject matter of independent claim 1 and the dependent claim 8.

As described below, it is believed that independent claims 1, 2, 5, 9, 12, 14, and 23 are in immediate condition for allowance.

Claim Rejections under 35 U.S.C. §102(b) and §102(e)

Claims 1, 5, 9, and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kosuge et al. (EP 09260559 A2); and

Claims 1-3,9, and 14 stand rejected under 35 U.S.C. §102(e) as being anticipated by Ooshima et al. (U.S. 6,439,065).

These rejections are respectfully traversed.

Arguments Regarding Independent Claims 1 and 2

Independent claim 1 as currently written recites a combination of elements in a control unit for a motor-assisted vehicle, including

means for detecting an actual running resistance of a vehicle.

By contrast, Kosuge et al. merely discloses a control unit for determining an assist ratio based on a comparison of a current running environment with a reference running environment. With this device, the reference environment is preset based on the road surface and meteorological conditions.

Ooshima et al. merely discloses that a micro computer controls an assist ratio based on the characteristic curves. However, assist drive force is merely limited that the ratio equal to the man-power drive.

The present invention on the other hand, provides an assist drive force controlled based on a flat road running resistance whenever the vehicle is moving on an upward slope or downward slope.

Therefore independent claim 1 is in condition for allowance.

While not conceding the appropriateness of the Examiner's rejection but merely to advance the prosecution of the present application, independent claim 2 is amended to recite a combination of elements in a control unit for a motor-assisted vehicle, including

means for detecting that said vehicle has started a pedaling operation; and

means for detecting an actual running resistance of a vehicle.

Support for the novel features set forth in claim 2 as amended can be found in the specification, for example, in paragraphs [0072] and [0073].

By contrast, means for detecting that said vehicle has started of a pedaling operation; as set forth independent claim 2 as amended is not disclosed or made obvious by the prior art of record, including Kosuge et al. and Ooshima et al.

Therefore independent claim 2 is in condition for allowance.

Arguments Regarding Independent Claims 5, 9, 14, 12, and 23

Further, while not conceding the appropriateness of the Examiner's rejection but merely to advance the prosecution of the present application, each of independent claims 5, 9, and 14 is amended to recite a combination of elements in a control unit for a motor-assisted vehicle, wherein "the assist drive force is decreased for a predetermined period of time if the inclination of the running road surface is changed into an upward inclination, and the motor drive force is increased for a predetermined period of time if the inclination of the running road surface is changed into a downward inclination" (the subject matter of objected-to claim 12).

In addition, while not conceding the appropriateness of the Examiner's rejection but merely to advance the prosecution of the present application, objected-to dependent claim 12 is rewritten in independent form without the subject matter of base claim 5.

Still further, independent claim 23 is added to combine the subject matter of independent claim 1 and the allowable dependent claim 8.

It is respectfully submit that the combinations of elements set forth in amended independent claims 5, 9, 12, 14, and 23 are not disclosed or made obvious by the prior art of record, including Kosuge et al. and Ooshima et al.

In particular, neither the Kosuge et al. document nor the Ooshima et al. document suggest

"the assist drive force is decreased for a predetermined period of time if the inclination of the running road surface is changed into an upward inclination, and the motor

drive force is increased for a predetermined period of time if the inclination of the running road surface is changed into a downward inclination” (as set forth in claims 5, 9, 12, and 14).

Claims 9, 12, and 14 as amended herein do not include the subject matter of claim 5, but the Applicants believe that the subject matter of claim 5 is not needed in claims 9, 12, and 14 for claims 9, 12, and 14 to be patentable.

In view of the foregoing, it is respectfully submitted that the combinations of elements set forth in amended claims 5, 9, 12, 14, and 23 are not disclosed or made obvious by the prior art of record, including Kosuge et al. and Ooshima et al.

Therefore independent claims 5, 9, 12, 14, and 23 are in condition for allowance.

Since the dependent claims depend from allowable independent claims, the dependent claims are also allowable for at least the reasons set forth above, as well as the additional limitations set forth therein. Therefore, reconsideration and withdrawal of the rejections under 35 U.S.C. §102(b) and §102(e) and allowance of all claims are respectfully requested.

CONCLUSION

All the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

However, if there are any outstanding issues, the Examiner is invited to telephone Carl T. Thomsen, Reg. No. 50,786, at 703-205-8000 in an effort to expedite prosecution.

Appl. No. 10/084,140
Amendment dated December 8, 2004
Reply to Office Action of July 8, 2004

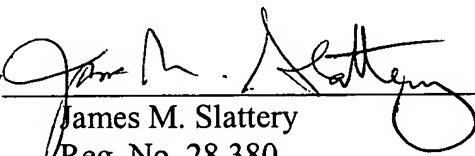
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Art Unit: 3661
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Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), the Applicants respectfully petition for a two (2) month extension of time for filing a response in connection with the present application and the required fee of \$450 is included in the check attached herewith.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

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